



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE BOARD OF PATENT APPEALS AND**  
**INTERFERENCES**

In re Application of  
Gijsbert Joseph Van Den  
Enden, et al.

LASER DIODE CONTROLLER IN  
REWRITABLE OPTICAL  
RECORDING DEVICES

Serial No. 09/787,095

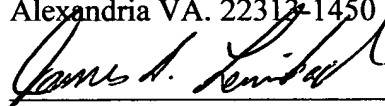
Filed: March 13 2001

Confirmation No. 1084

Group Art Unit: 2652

Examiner: Peter Vincent Agustin

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**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

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Serial No. 09/787,095

**Real party in interest**

The real party of interest is the Assignee who is U. S. Philips Corporation, a corporation existing under the laws of the State of Delaware (hereinafter Appellant).

**Related appeals and interferences**

There are no related appeals or interferences to the present application that are known to appellants, the appellant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**Status of the Claims**

Claims 1-20 are drawn to a recording device for optical recording with two different states that can be recorded by adjusting a power level of a laser diode depending on information content to be generated on the media, wherein during writing of the states, a beam from the laser diode is focused upon a spot that is written for one of the states, a reflection is measured from the spot of only one of the states and a measured value of the reflection is used for controlling the power of the laser diode for writing of both states. Claims 1-20 stand rejected as the claims that are currently being appealed. A copy of appealed claims 1-20 is contained in Appendix III following this brief.

**Status of the Amendments After Final**

A response was filed subsequent to the final rejection to overcome the Examiner's rejection of claims 1-20 under the provisions of 35 U.S.C. §112, first paragraph; claims 1-6 and 17-20 under the provisions of 35 U.S.C. §112, second paragraph; claims 1, 2, 6-8 and 12 under the provisions of 35 U.S.C. §102(b); and claims 3-5, 9-11 and 13-20 under the provisions of 35 U.S.C. §103(a). The examiner in an Advisory Action dated March 16, 2006 indicated that the response to the final rejection would not be entered because new claim 21 introduced new issues. It should be noted that new claim 21 was refused entry by the March 16, 2006 Advisory Action defined subject matter is similar to claim 1 as originally filed. The appellants respectfully point out that, while the March 16, 2006 Advisory Action stated that the February 24, 2006 response made by the appellants would not be entered, the Advisory Action did address the arguments

made by the appellants in the February 24, 2006 response. The March 16, 2006 Advisory Action indicated that the rejections to claims 1-20 stand.

### **Summary of the Claimed Subject Matter**

The appealed claims define subject matter for recording on rewritable media 3, with which two different states can be recorded characterized in that during writing of the states, a beam from the laser diode 2 is focused upon a spot that is written for one of the states, a reflection is measured from the spot of only one of the states and a measured value of the reflection is used for controlling the power of the laser diode for writing of both states.

Appealed claim 1 defines subject matter for an electronic optical recording device for optical recording on rewritable media 3, with which two different states can be recorded by adjusting a power level of a laser diode depending on information content to be generated on the media ( crystalline and amorphous as discussed in the specification on page 2, lines 9-19), Characterized in that during writing of the states, a beam from the laser diode is focused upon a spot that is written for one of the states, a reflection is measured from the spot of only one of the states and a measured value of the reflection is used for controlling the power of the laser diode for writing of both states (see specification page 2, lines 6-8).

Appealed claim 7 defines subject matter for an electronic optical recording device for optical recording on rewritable media 3 that records by adjusting a power level of a laser diode 2 to one of two different states depending on information content to be recorded on the media, including: means for measuring a reflection from a written spot (peak detector 6 generates a reading signal M as discussed on page 2, lines 30-31) of only one of the states during writing (see specification page 2, lines 6-8); and means for controlling the power of the laser diode (gain factor of multiplying stage 11 in the Figure) to be a measured value of the reflection for writing both states (see specification page 3, lines 4-6).

Appealed claim 8 defines subject matter for an electronic device of appealed claim 7, wherein the means for measuring the reflection measures at spots already written in a highly reflecting state is being overwritten with a highly reflecting state (see specification page 2, lines 20-21; and (gain factor of multiplying stage 11 in the Figure).

Appealed claim 9 defines subject matter for an electronic device as in appealed claim 7, wherein the means for measuring the reflection further includes a signal peak detector

that measures reflected light (peak detector 6 generates a reading signal M as discussed on page 2, lines 30-31).

Appealed claim 12 defines subject matter for an electronic device as defined by claim 7, wherein the means for measuring the reflection measures when a highly reflective state is written (peak detector 6 generates a reading signal M that is compared with a reference value and a difference applied to the multiplying stage as discussed on page 2, lines 29-33; and page 2, lines 20-21).

Appealed claim 17 defines subject matter for an electronic device as claimed in appealed claim 5, wherein the deviation occurs as a result of soiling of the rewritable media (as discussed on the specification on page 1, lines 14-24).

Appealed claim 18 defines subject matter for an electronic device as defined by 17, wherein the deviation results in the means for controlling the power of the laser diode to be readjusted (see specification page 2, lines 29-34).

### **Grounds of Rejection to be Reviewed on Appeal**

The Advisory Action dated March 16, 2006 indicated that the rejections to claims 1-20 stand. Claims 1-20 are the appealed claims.

I. Claims 1-20 are rejected under the provisions of 35 U.S.C. §112, first paragraph for failing to comply with the enabling requirement. The Examiner's position is that the rejected claims define subject matter that is not described in the specification in a manner that enables a person skilled in the art to make or use the invention.

II. Claims 1-6 and 17-20 are rejected under the provisions of 35 U.S.C. §112, second paragraph as being incomplete and lacking essential elements. The Examiner's position is that the rejected claims omit elements for providing the claimed results.

III. Claims 1, 2, 6-8 and 12 are rejected under the provisions of 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,712,839 issued to Aoki (hereinafter referred to as *Aoki*). The Examiner's position is that *Aoki* discloses the subject matter defined by appealed claims 1, 2, 6-8 and 12.

IV. Claims 3-5, 9-11 and 13-20 are rejected under the provisions of 35 U.S.C. §103(a) as being obvious over *Aoki* in view of U.S. Patent No. 5,184,343 issued in the name of Johann et al. (hereinafter *Johann et al.*) The Examiner admits that *Aoki* does not disclose

measuring a reflected signal using a peak detector as defined by the appealed claims. The Examiner's position is that *Aoki* combined with *Johann et al.* teach the subject matter for measuring a reflected signal using a peak detector as defined appealed claims 3-5, 9-11 and 13-20.

## **Argument**

### **I. The rejection of appealed claims 1-20 under the provisions of 35 U.S.C. §112, first paragraph for failing to comply with the enabling requirement**

#### **A. The Rejection**

The Examiner's position is that the rejected claims define subject matter that is not described in the specification in a manner that enables a person skilled in the art to make or use the invention.

The MPEP at §2164 states that the "enablement requirement refers to the requirement of 35 U.S.C. 112, first paragraph that the specification describe how to make and how to use the invention. The invention that one skilled in the art must be enabled to make and use is that defined by the claim(s) of the particular application or patent.

The purpose of the requirement that the specification describe the invention in such terms that one skilled in the art can make and use the claimed invention is to ensure that the invention is communicated to the interested public in a meaningful way. The information contained in the disclosure of an application must be sufficient to inform those skilled in the relevant art how to both make and use the claimed invention. However, to comply with 35 U.S.C. 112, first paragraph, it is not necessary to "enable one of ordinary skill in the art to make and use a perfected, commercially viable embodiment absent a claim limitation to that effect." *CFMT, Inc. v. Yieldup Int'l Corp.*, 349 F.3d 1333, 1338, 68 USPQ2d 1940, 1944 (Fed. Cir. 2003)."

#### **B. Appellants arguments in favor of appealed claims 1-20 as being compliant with the enabling requirement under the provisions of 35 U.S.C. §112, first paragraph**

The rejection alleges that the subject matter defined by the rejected claims is not enabled by the specification to the present applicant for invention. The appellants, respectfully, submit that the subject matter defined by the appealed claims is communicated to the interested public in a meaningful way by the specification to the invention as originally filed for the reasons stated below.

### **Appealed claim 1**

Regarding appealed claim 1, the examiner' position is that the terminology "a reflection is measured from the spot of only one of the states and a measured value of the reflection is used for controlling the power of the laser diode for writing of both states" is not disclosed. The appellants, respectfully, point out that an object of the invention is described beginning on page 2, line 4 of the specification as providing "the control of the output power during writing". The specification then states on page 2, lines 6-8 that this "object is achieved in that during the writing of the states the reflection is measured of only one of the states and the measured value is used for controlling power of the diode even when the other state is being written."

The specification on page 2, lines 9-12 states that preferably "when a highly reflective (= crystalline) state is written, the reflected amount of light is measured by means of a signal peak detector and compared to a reference value. In case of deviations, for example as a result of soiling of the surface of the storage medium, the power of the laser diode is readjusted accordingly." This foregoing passage clearly defines subject matter that occurs during the writing of a highly reflective state wherein the power of the laser is readjusted in a read during write cycle. The specification on page 2, lines 12-14 states that the "readjustment factor determined in this manner is also retained preferably when writing a low reflective (= amorphous) state." Note that the word "also" within the foregoing passages clearly shows that the readjustment factor is used writing for writing both crystalline and amorphous states. The sentence on page 2 lines 9-19 of the specification clearly states that an "individual readjustment for writing a low-reflecting state in not necessary as a result."

The specification on page 2, lines 9-19 describes a process that employs the reflection from the highly reflective states for writing both highly reflective states and low reflective states. Still more specifically, the description on page 2 lines 9-19 of the specification

describes that deviations as a result of soiling will use the reflection from the highly reflective state for writing both crystalline and amorphous states. The description on page 2 lines 9-19 of the specification specifically states that channel coding ensures that the highly reflective states are not too far apart and that the distances between the highly reflecting states to be written are generally smaller than the assumed extent of the soiling. It will be clear to any person of ordinary skill within the art that the description on page 2 lines 9-19 of the specification is discussing that writing for both crystalline and amorphous states will use reflections determined from the highly reflective states for laser readjustments. It is further explained on page 2 lines 9-19 of the specification that it is possible to use only the highly reflective states due to the assumed extent of the soiling being larger than the spacing of the highly reflective states “to be written”. Note that there is no mention within the specification that would lead or otherwise motivate a person skilled in the art to retain a reflected value from a low-reflective state to be used for controlling laser power. The specification clearly teaches to a person skilled within the art that it can be advantageous to use the reflection obtained from highly-reflective states for controlling laser power for writing both crystalline and amorphous states, at least over soiled areas.

An embodiment is detailed beginning on page 2, line 24 of the specification and proceeding through page 3, line 6. The specification on page 2, lines 27-30 states that in “control circuit 5 is determined the respective laser power of the laser diode 2”. The appellants, respectfully, point out that the description in the specification to the present invention at page 2, lines 9-14 states that during writing of a highly-reflective state that light is measured and compared with a reference value, and in the case of deviations the power of the laser diode is readjusted accordingly. The example of the embodiment further describes on page 3, lines 3-5 that the gain factor is changed in accordance with reflected light to provide as constant a power as possible on the storage medium when one or the other state is written. A person skilled in the art would conclude from the foregoing that reflections from highly-reflective states are used to readjust power when writing both states.

#### **Appealed claim 2**

Regarding appealed claim 2, the rejection alleges that the specification to the present invention does not disclose how “the reflection is measured at spots where a piece already in a highly reflecting state is overwritten with a highly reflecting state”. The appellants,

respectfully, direct the Board's attention to page 3, lines 20-21 of the specification where it is stated that preferably "the reflection is measured at spots where a piece already in a highly reflecting state is overwritten with a highly reflecting state". The description on page 3, lines 20-21 of the specification details a measuring point for the reflection that is described on lines 9-19 to page 2 of the specification. The example in the Figure shows an embodiment for detecting and measuring the reflection.

**Appealed claim 2**

Regarding appealed claim 4, the examiner states that the disclosure of the invention does not enable one skilled in the art to use a reference value to measure reflections of writing spots for only one state during writing. The appellants, respectfully, point out that the specification on page 2, lines 9-11 clearly states "the reflected amount of light is measured by means of a peak detector and compared to a reference value. Any person of ordinary skill within the art will quickly and readily understand how to implement a signal peak detector measurement compared within a reference value for only one of the states during writing.

**Appealed claim 2**

Regarding appealed claim 5, the examiner's position is that the disclosure of the invention does not enable one skilled in the art to use a reference value to measure reflections of writing spots for only one state during writing for adjusting. The appellants, respectfully, point out that page 2, lines 9-12 of the specification clearly states that the power of the laser diode is adjusted if a comparison of the signal peak detector to the reference value indicates a deviation.

**Appealed claim 7**

Regarding appealed claim 7, the examiner asserts that the disclosure of the invention does not enable means for measuring a reflection from a written spot for only one state during writing. The appellants, respectfully, point out that the specification on page 2, lines 6-8 that this "object is achieved in that during the writing of the states the reflection is measured of only one of the states and the measured value is used for controlling power of the diode even



when the other state is being written.” The specification on page 2, lines 9-12 states that preferably “when a highly reflective (= crystalline) state is written, the reflected amount of light is measured by means of a signal peak detector and compared to a reference value. The example of the embodiment is detailed beginning on page 2, line 24 of the specification and proceeding through page 3, line 6. The specification on page 2, lines 27-30 states that in “control circuit 5 is determined the respective laser power of the laser diode 2”. The description at page 2, lines 9-14 states that during writing of a highly-reflective state that light is measured and compared with a reference value, and in the case of deviations the power of the laser diode is readjusted accordingly. The example of the embodiment further describes on page 3, lines 3-5 that the gain factor is changed in accordance with reflected light to provide as constant a power as possible on the storage medium when one or the other state is written. A person skilled in the art would conclude from the foregoing that reflections from highly-reflective states are used to readjust power when writing both states.

Regarding appealed claim 7, the rejection states that it is not clear how the elements of the Figure are interrelated or configured to achieve power control. The appellants, respectfully assert that person of ordinary skill within the art can look at the Figure and by viewing the description on page 2-3 of the specification as discussed above and understand how to enable the subject matter for laser power control using reflections from highly-reflective states to readjust power when writing both states.

#### **Appealed claim 8**

Regarding appealed claim 8, the rejection states that it is not clear how the peak detector is configured to measure spots already in a highly reflective state that are being overwritten with a highly reflective state. The appellants, respectfully, submit that a person of ordinary skill within the art would be capable of implementing the subject matter to which the Examiner refers. A person of ordinary skill within the art would realize that the disclosed photodiode that detects a reflected signal can be used to detect highly reflective areas and that the recording system is well aware of writing highly reflective states.

The remaining appealed claims are rejected due to their dependency on the above discussed appealed claims.

**II. The rejection of appealed claims 1-6 and 17-20 under the provisions of 35 U.S.C. §112, second paragraph, as being incomplete and lacking essential elements**

**A. The Rejection**

The Examiner's position is that the rejected claims omit elements for providing the claimed results.

The MPEP at §2172.01 states that a "claim which omits matter disclosed to be essential to the invention as described in the specification or in other statements of record may be rejected under 35 U.S.C. 112, first paragraph, as not enabling. *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). See also MPEP § 2164.08(c). Such essential matter may include missing elements, steps or necessary structural cooperative relationships of elements described by the applicant(s) as necessary to practice the invention."

The MPEP at §2172.01 further states that "a claim which fails to interrelate essential elements of the invention as defined by applicant(s) in the specification may be rejected under 35 U.S.C. 112, second paragraph, for failure to point out and distinctly claim the invention. See *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976); *In re Collier*, 397 F.2d 1003, 158 USPQ 266 (CCPA 1968)."

**B. Appellants arguments in favor of appealed claims 1-6 and 17-20 being compliant with the provisions of 35 U.S.C. §112, second paragraph**

The Examiner's position is that the rejected claims omit elements for providing the claimed results. The examiner lists recording two different states, adjusting a power level, measuring from the spot of only one of these states, and controlling the power for writing both states. The applicant, respectfully points out that the rejected claims define subject matter for an electronic optical recording device for optical recording on rewritable media, with which two different states can be recorded by adjusting a power level of a laser diode depending on information content to be generated on the media. The rejected claims are characterized in that

during writing of the states a beam from the laser diode is focused upon a spot that is written for one of the states, a reflection is measured from the spot of only one of the states and a measured value of the reflection is used for controlling the power of the laser diode for writing of both states. Therefore, the subject matter to which the Examiner refers is found within the rejected claims.

The appealed claims do not omits matter that is disclosed to be essential to the invention as described in the specification. It does seem like this rejection should be under 35 U.S.C. 112, first paragraph, as not being enabling. The appellants submit that the appealed claims are enabling as discussed under the appeal related to 35 U.S.C. 112, first paragraph. There is no essential necessary to practice the invention not included in the appealed claims.

The rejection does not allege the appealed claims fail to interrelate the essential elements of the invention as defined by the specification. The appellants, respectfully, submit that there are no essential elements of the invention as defined by the appellants in the specification that are not effectively interrelated by the appealed claims.

### **III. The rejection of appealed claims 1, 2, 6-8 and 12 under the provisions of 35 U.S.C. §102(b) as being anticipated by *Aoki* (U.S. Patent No. 5,712,839)**

#### **A. The rejection under 35 U.S.C. S 102(b)**

Appealed claims 1, 2, 6-8 and 12 stand rejected under the provisions of 35 U.S.C. §102(b) as being anticipated by *Aoki* (U.S. Patent No. 5,712,839). The examiner's position is that *Aoki* disclose every element defined by appealed claims 1, 2, 6-8 and 12.

The MPEP at §2131 states that in order to anticipate a claim, a reference must tech each and every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

### **B. The reference**

*Aoki* (U.S. Patent No. 5,712,839) teaches a power control system that controls power of light emitted from a light source (see Abstract). *Aoki* teaches that the light emitted from the light source to the recording medium has a first power used to erase information and a second power used to record information (see *Aoki* col. 2, lines 58-63). The power control system taught by *Aoki* detects light reflected from the recording medium when the light source emits light having the first power to erase (see *Aoki* col. 2, lines 63-67). *Aoki* teaches outputting a reflection signal corresponding to the reflected light and controlling the first power of the emitted light so that the reflected level is controlled at a predetermined target level (see *Aoki* col. 2, line 67-col 3, line 5).

*Aoki* specifically discloses that the reflection from recording on a phase change type medium is hardly detected and, therefore, teaches to control reflection from the medium using a bias (erase) level (see col. 6, lines 17-24). As taught by *Aoki*, the bias level is clearly a lesser reflecting level (see reflection signal shown in Figure 3 of *Aoki*, where the reflection signal is least during bias power levels). *Aoki* teaches to use the DC level of the bias radiation for controlling the light source. There is no disclosure or suggestion for within *Aoki* for using a measured value of the reflection for controlling the power of the laser diode for writing of both states.

*Aoki* teaches monitoring reflected light during a bias level which is the erase power (see col. 4, line 62-col. 5, line 1). It should be noted that the erase power disclosed by *Aoki* is controlled to be in a range of 5-7 milliwatts and that the recording power disclosed by *Aoki* is controlled to be in a range of 10-15 milliwatts. *Aoki* provides no teaching related to monitoring reflected light during writing periods. *Aoki* does not monitor reflected beams during recording of one of the states but instead discloses monitoring during periods that the erase power is implemented for the laser diode. The erase power disclosed by *Aoki* is in a range of 5-7 milliwatts and that the recording power disclosed by *Aoki* is in a range of 10-15 milliwatts. Therefore, the monitoring taught by *Aoki* can not occur during the writing of one of the states for the simple reason that recording as taught by *Aoki* requires power in a range of 10-15 milliwatts. Monitoring by *Aoki* occurs while the laser diode is in a range of 5-7 milliwatts used for erasing which is not sufficient power for writing states which is disclosed by *Aoki* as being within a range of 10-15 milliwatts.

*Aoki* teaches the use of a measuring reflectivity based on a bias determined at an erase power. The erase power taught by *Aoki* is not sufficient for writing (recording). It is not possible for the monitoring during periods of erasure as taught by *Aoki* to be used to measure reflections for only one at spots where a piece already in a highly reflecting state is overwritten with a highly reflecting state. Simply put, there is no monitoring within *Aoki* during recording.

The appellants respectfully, submit that the erase power level (the bias level) of *Aoki* is clearly a less reflecting level than the recording level as taught by *Aoki* (see reflection signal shown in Figure 3 of *Aoki* wherein the reflection signal is least during bias power levels). *Aoki* monitors reflections occurring during an erase state; which is specifically distinguished within *Aoki* from a recording state. It should be noted that there is no disclosure or suggestion for the erase state in *Aoki* to be a highly reflective state. *Aoki* clearly states that the bias determined during periods of the erase power is used to determine the monitoring of reflections. *Aoki* further states that the erase power is less than the recording power for either of the states. The monitoring of a reflection during an erase state as taught by *Aoki* is not equivalent to monitoring a reflection during recording. The appellants, respectfully, submit that the erase power level (the bias level) of *Aoki* is clearly a less reflecting level, as taught by *Aoki*, than the highly reflective states.

### **C. The differences between the invention and the reference**

The examiner's position is that *Aoki* discloses the subject matter defined by the appealed claims. The appellants, respectfully, points out that *Aoki* specifically discloses that the reflection from recording on a phase change type medium is hardly detected and, therefore, teaches to control reflection from the medium using a bias (erase) level (see col. 6, lines 17-24), rather than a recording level as defined by the rejected claims. The appellants assert the only reasonable interpretation is that the erase power level (the bias level) of *Aoki* is used in recording data. The bias level is clearly a less reflecting level as taught by *Aoki* (see reflection signal shown in Figure 3 of *Aoki* wherein the reflection signal is least during bias power levels). Moreover, appealed claims 1, 2, 6-8 and 12 define subject matter for a measured value of the reflection that is used for controlling the power of the laser diode for writing of both states. *Aoki* teaches to use the DC level of the bias radiation for controlling the light source. There is no

disclosure or suggestion for within *Aoki* for using a measured value of the reflection for controlling the power of the laser diode for writing of both states.

### **Appealed claim 1**

Regarding appealed claim 1, the appellants, respectfully, point out that *Aoki* teaches monitoring reflected light during a bias level which is the erase power (see col. 4, line 62-col. 5, line 1). It should be noted that the erase power as taught by *Aoki* is controlled to be in a range of 5-7 milliwatts and that the recording power as taught by *Aoki* is controlled to be in a range of 10-15 milliwatts. *Aoki* provides no teaching related to monitoring reflected light during writing periods. The rejected claims define subject matter for during writing of the states a beam from the laser diode is focused upon a spot that is written for one of the states, a reflection is measured from the spot of only one of the states and a measured value of the reflection is used for controlling the power of the laser diode for writing of both states. *Aoki* does not does monitor reflected beams during recording of one of the states; but instead, *Aoki* discloses monitoring during periods of erasure power being implemented for the laser diode. The erasure power disclosed by *Aoki* is in a range of 5-7 milliwatts and the recording power disclosed by *Aoki* is in a range of 10-15 milliwatts. Accordingly, the monitoring taught by *Aoki* can not occur during the writing of one of the states for the simple reason that recording as taught by *Aoki* requires power in a range of 10-15 milliwatts. Monitoring by *Aoki* occurs while the laser diode is in the range of 5-7 milliwatts as used for erasing. The range of 5-7 milliwatts is not sufficient power for the writing of data; which as disclosed by *Aoki* as being within a range of 10-15 milliwatts. Accordingly, *Aoki* does not disclose all the elements of the rejected claims. In fact, *Aoki* teaches monitoring that is fundamentally different from the invention as defined by the appealed claim 1.

### **Appealed claim 2**

Appealed claim 2 defines subject matter for the reflection being measured at spots wherein, a piece already in a highly reflecting state is overwritten with a highly reflecting state. As previously discussed under appealed claim 1, *Aoki* teaches the use of a measuring reflectivity based on a bias determined at an erase power. The erase power taught by *Aoki* is not sufficient for writing (recording). Therefore, the subject matter defined by appealed claim 2 is not

disclosed or suggested by *Aoki*. It is not possible for the monitoring during periods of erasure as taught by *Aoki* to be used to measure reflections for only one at spots where a piece already in a highly reflecting state is overwritten with a highly reflecting state. Simply put, there is no monitoring during recording disclosed or suggested by *Aoki*.

#### **Appealed claim 6**

Appealed claim 6 defines subject matter for the reflection of a highly reflective state to be used to control power when both the highly reflective state and the less reflective state are written. The appellant assert that if the erase power level (the bias level) of *Aoki* is used in recording for data, the bias level is clearly a less reflecting level as taught by *Aoki* (see reflection signal shown in Figure 3 of *Aoki* wherein the reflection signal is least during bias power levels). Appealed claim 6 includes the subject matter defined by appealed claim 1 for an electronic optical recording device for optical recording on rewritable media, with which two different states can be recorded by adjusting a power level of a laser diode and that during writing of the states a beam from the laser diode is focused upon a spot that is written for one of the states, a reflection is measured from the spot of only one of the states and a measured value of the reflection is used for controlling the power of the laser diode for writing of both states. This subject matter is not disclosed, or suggested, by *Aoki*. As previously discussed in the response under appealed claim 1, *Aoki* monitors reflections during an erase state which is specifically distinguished within *Aoki* from a recording state. The examiner attempts to insert definition that the erase state is the same as the highly reflective state. In contradistinction for the assertions made by the examiner, *Aoki* clearly states that the bias determined during periods of the erase power is used to determine the monitoring of reflections. *Aoki* further states that the erase power is less than the recording power for either of the states. The monitoring of a reflection during as erase state is not equivalent to monitoring during recording. The bias level as taught by *Aoki* is clearly a less reflecting level (see reflection signal shown in Figure 3 of *Aoki* wherein the reflection signal is least during bias power levels).

#### **Appealed claim 7**

Appealed claim 7 defines subject matter for an electronic optical recording device for optical recording on rewritable media that records by adjusting a power level of a laser diode

to one of two different states depending on information content to be recorded on the media, comprising means for measuring a reflection from a written spot of only one of the states during writing and means for controlling the power of the laser diode to be a measured value of the reflection for writing both states. As previously discussed in the argument under appealed claim 1, only the light reflected during bias levels for erasure are measured by *Aoki*. There is no disclosure or suggestion within *Aoki* for measuring a reflection from a written spot for only one of the states during writing or means for controlling the power of the laser diode to be a measured value of the reflection for writing both states.

### **Appealed claim 8**

Appealed claim 8 defines subject matter for the reflection being measured at spots wherein, a piece already in a highly reflecting state is overwritten with a highly reflecting state. *Aoki* teaches measuring reflectivity based on a bias determined at an erase power. The erase power taught by *Aoki* is not sufficient for writing (recording). Therefore, the subject matter defined by appealed claim 8 is not disclosed or suggested by *Aoki*. It is not possible for the monitoring during periods of erasure as taught by *Aoki* to be used to measure reflections for only one at spots where a piece already in a highly reflecting state is overwritten with a highly reflecting state. Simply put, there is no monitoring during recording disclosed or suggested by *Aoki*.

### **Appealed claim 12**

Appealed claim 12 defines subject matter for the reflection of a highly reflective state to be used to control power when both the highly reflective state and the less reflective state are written. The appellants assert that the erase power level (the bias level) of *Aoki* is used in recording of data, the bias level is clearly a less reflecting level as taught by *Aoki* (see reflection signal shown in Figure 3 of *Aoki* wherein the reflection signal is least during bias power levels). Appealed claim 12 includes the subject matter defined by appealed claim 7 for an electronic recording device for recording on rewritable media, with which two different states can be recorded by adjusting a power level of a laser diode and that during writing of the states a beam from the laser diode is focused upon a spot that is written for one of the states, a reflection is measured from the spot of only one of the states and a measured value of the reflection is used



for controlling the power of the laser diode for writing of both states. This subject matter is not disclosed, or suggested, by *Aoki*. *Aoki* monitors reflections during an erase state which is specifically distinguished within *Aoki* from a recording state. The examiner attempts to insert definition that the erase state is the same as the highly reflective state. In contradistinction for the assertions made by the examiner, *Aoki* clearly states that the bias determined during periods of the erase power is used to determine the monitoring of reflections. *Aoki* further states that the erase power is less than the recording power for either of the states. The monitoring of a reflection during an erase state is not equivalent to monitoring during recording. The bias level as taught by *Aoki* is clearly a less reflecting level (see reflection signal shown in Figure 3 of *Aoki* wherein the reflection signal is least during bias power levels).

**IV. The rejection of appealed claims 3-5, 9-11 and 13-20 under the provisions of 35 U.S.C. §103(a) as being obvious over *Aoki* in view of *Johann et al.* (U.S. Patent No. 5,184,343)**

**A. The rejection under 35 U.S.C. S 103(a)II**

Appealed claims 3-5, 9-11 and 13-20 are rejected under the provisions of 35 U.S.C. §103(a) as being obvious over *Aoki* in view of *Johann et al.* (U.S. Patent No. 5,184,343). The examiner admits that *Aoki* does not disclose measuring a reflected signal using a peak detector as defined by the appealed claims. The Examiner's position is that *Aoki* combined with *Johann et al.* teach the subject matter for measuring a reflected signal using a peak detector as defined by appealed claims 3-5, 9-11 and 13-20.

The MPEP at §2143 states that to "establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)."

The MPEP at §2143.01 further states that if the "proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is

no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).”

The MPEP at §2143.01 further states that if “the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).”

### **B. The references**

*Aoki* (U.S. Patent No. 5,712,839) has been previously discussed under the appeal related to anticipation under *Aoki*. As previously discussed, *Aoki* teaches to use the DC level of the bias radiation for controlling the light source. *Aoki* teaches that the light emitted from the light source to the recording medium has a first power used to erase information and a second power used to record information (see *Aoki* col. 2, lines 58-63). The power control system taught by *Aoki* detects light reflected from the recording medium when the light source emits light having the first power to erase (see *Aoki* col. 2, lines 63-67). *Aoki* teaches outputting a reflection signal corresponding to the reflected light and controlling the first power of the emitted light so that the reflected level is controlled at a predetermined target level (see *Aoki* col. 2, line 67-col 3, line 5).

*Aoki* specifically discloses that the reflection from recording on a phase change type medium is hardly detected and, therefore, teaches to control reflection from the medium using a bias (erase) level (see col. 6, lines 17-24), rather than a recording level as defined by the appealed claims. There is no disclosure or suggestion for within *Aoki* for using a measured value of the reflection for controlling the power of the laser diode for writing of both states.

*Aoki* teaches monitoring reflected light during a bias level which is the erase power (see col. 4, line 62-col. 5, line 1). It should be noted that the erase power disclosed by *Aoki* is controlled to be in a range of 5-7 milliwatts and that the recording power disclosed by *Aoki* is controlled to be in a range of 10-15 milliwatts. *Aoki* provides no teaching related to monitoring reflected light during writing periods. *Aoki* does not does monitor reflected beams during recording of one of the states but instead discloses monitoring during periods that the erase power is implemented for the laser diode. The erase power disclosed by *Aoki* is in a range of 5-7 milliwatts and that the recording power disclosed by *Aoki* is in a range of 10-15 milliwatts.

Therefore, the monitoring taught by *Aoki* can not occur during the writing of one of the states for the simple reason that recording as taught by *Aoki* requires power in a range of 10-15 milliwatts. Monitoring by *Aoki* occurs while the laser diode is in a range of 5-7 milliwatts used for erasing which is not sufficient power for writing states which is disclosed by *Aoki* as being within a range of 10-15 milliwatts.

It should be noted that the erase power level (the bias level) of *Aoki* used in recording data is clearly a less reflecting level as taught by *Aoki* (see reflection signal shown in Figure 3 of *Aoki* wherein the reflection signal is least during bias power levels). *Aoki* monitors reflections occurring during an erase state; which is specifically distinguished within *Aoki* from a recording state. It should be noted that there is no disclosure or suggestion for the erase state in *Aoki* to be a highly reflective state. *Aoki* clearly states that the bias determined during periods of the erase power is used to determine the monitoring of reflections. *Aoki* further states that the erase power is less than the recording power for either of the states. The monitoring of a reflection during an erase state as taught by *Aoki* is not equivalent to monitoring a reflection during recording. The appellants, respectfully, submit that the erase power level (the bias level) of *Aoki* is clearly less reflecting level than the highly reflective states used in recording.

Note that there is no disclosure or suggestion within *Aoki* for during writing of the states, a beam from the laser diode is focused upon a spot that is written for one of the states, measuring a reflection only one of the states and a measured value of the reflection is used for controlling the power of the laser diode for writing of both states. The peak detection of *Aoki* specifically works at an erase power level.

*Johann et al.* teach an apparatus and method for compensating for dust particles on the surface of a disc during writing. *Johann et al.* teach the use of a peak detector to detect if the light reflected back from the storage medium drops below an average read level (see Abstract). *Johann et al.* requires that peak detection be used to control laser power. The peak detection taught by *Johann et al.* is a negative peak detection that is used to detect if the most negative extremes of the data signal falls below the average read level (see col. 4, lines 57-62). Note that there is no disclosure or suggestion within *Johann et al.* for during writing of the states, a beam from the laser diode is focused upon a spot that is written for one of the states, measuring a reflection only one of the states and a measured value of the reflection is used for controlling

the power of the laser diode for writing of both states. The peak detection of *Johann et al.* specifically works at a read level.

### **C. The differences between the invention and the references**

The examiner admits that *Aoki* does not disclose measuring a reflected signal using a peak detector as defined by the rejected claims. The appellants, respectfully, assert that the combination of *Aoki* with *Johann et al.* is an improper combination. As previously discussed, *Aoki* teaches to use the DC level of the bias radiation for controlling the light source. *Johann et al.* teach use of a peak detector.

The combination made in the rejection attempts to insert a peak detector of *Johann et al.* in place using the DC level of the bias radiation as taught by *Aoki*. The Applicant asserts that this modification would render *Aoki* unsatisfactory for its intended purpose. This combination assumes mere conjecture on the part of those persons skilled within the art that the combination made by the rejection would be operational.

The proposed modification or combination of the prior art would change the principle of operation of the cited prior art references being modified. Replacing the DC level of the bias radiation as taught by *Aoki* with the peak detector of *Johann et al.* would clearly change the principle of operation of *Aoki* so modified. Therefore, there is no question that there is no suggestion to make the combination made in the rejection.

There is no reasonable expectation of success within the references, as required for a *prima facie* case of obviousness, for this combination.

### **Appealed claim 3**

Attempts to modify *Aoki* teaches to use a peak detector in place of the bias radiation for controlling the light source would render both *Johann et al.* and *Aoki* unsatisfactory for their respective intended purposes. The combination made in the rejection attempts to insert the peak detector of *Johann et al.* in place of detecting the level of the bias radiation as taught by *Aoki*. The appellants aver that this modification would render *Aoki* unsatisfactory for its intended purpose. *Aoki* controls laser power using a reflection that was gained during a bias mode. The combination requiring that *Aoki* use a peak detector in place of the bias mode

detection of *Aoki* creates a combination wherein the range of values of laser power (5-7 milliwatts) used by *Aoki* for determining bias mode would be replaced by a peak detector. The peak detector would not detect the range of values of laser power used by *Aoki* for determining a bias mode used for erasing but instead would detect peak values indicative of average read reflectance. Therefore, the range of values of laser power used by *Aoki* for determining bias mode would not be detected, rendering the combination unsatisfactory for the intended purpose of *Aoki* for detecting the range of values of laser power for determining bias mode.

In a similar manner *Johann et al.* requires that peak detection be used to control laser power. The peak detection taught by *Johann et al.* is a negative peak detection that is used to detect if the most negative extremes of the data signal falls below the average read level (see col. 4, lines 57-62). The peak detection of *Johann et al.* specifically works at a read level. The bias mode *Aoki* is the reflection level used for erasing. The combination created by the rejection would force *Johann et al.* to detect a range of values for laser power and determine a bias mode (which is the erase power level) rendering *Johann et al.* unsatisfactory for the intended purpose of responding to reflections from the medium that are less than an average read level.

The modification that the combination made by the rejection proposes would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).” Replacing the DC level of the bias radiation as taught by *Aoki* with the peak detector of *Johann et al.* would clearly change the principle of operation of *Aoki* so modified. Therefore, there is no question that there is no suggestion to make the combination made in the rejection.

There is no reasonable expectation of success within cited references *Aoki* and *Johann et al.* that the combination made by the rejection would work. The rejection makes assumptions that are mere conjecture on the part of the examiner. Those persons skilled within the art would not have found any reasonable expectation of success within the references, as required for a *prima facie* case of obviousness.

#### **Appealed claim 4**

Appealed claim 4 defines the electronic device of appealed claim 3, wherein the signal peak detector measurement is compared to a reference value. There is no disclosure or

suggestion within *Aoki* or *Johann et al.*, taken alone or in combination, for the electronic device of appealed claim 3, wherein the signal peak detector measurement is compared to a reference value.

**Appealed claim 5**

Appealed claim 5 defines the electronic device of appealed claim 4, wherein the power of the laser diode is adjusted if a comparison of the signal peak detector to the reference value indicates a deviation. There is no disclosure or suggestion within *Aoki* or *Johann et al.*, taken alone or in combination, for the electronic device of appealed claim 4, wherein the power of the laser diode is adjusted if a comparison of the signal peak detector to the reference value indicates a deviation.

**Appealed claim 9**

Appealed claim 9 defines the electronic device of appealed claim 7, wherein the means for measuring the reflection further comprises a signal peak detector that measures reflected light. There is no disclosure or suggestion within *Aoki* or *Johann et al.*, taken alone or in combination, for the electronic device of appealed claim 7, wherein the means for measuring the reflection further comprises a signal peak detector that measures reflected light.

**Appealed claim 10**

Appealed claim 10 defines the electronic device of appealed claim 9, wherein the peak detector measurement is compared to a reference value. There is no disclosure or suggestion within *Aoki* or *Johann et al.*, taken alone or in combination, for the electronic device of appealed claim 9, wherein the peak detector measurement is compared to a reference value.

**Appealed claim 11**

Appealed claim 11 defines the electronic device of appealed claim 10, wherein the peak detector measurement is compared to a reference value. There is no disclosure or suggestion within *Aoki* or *Johann et al.*, taken alone or in combination, for the electronic device

of appealed claim 10, wherein the power of the laser diode is adjusted if a comparison of the signal peak detector compared to the reference value indicates a deviation.

**Appealed claim 13**

Appealed claim 13 defines the electronic device of appealed claim 11, wherein the deviation occurs as a result of soiling of the rewritable media. There is no disclosure or suggestion within *Aoki* or *Johann et al.*, taken alone or in combination, for the electronic device of appealed claim 11, wherein the deviation occurs as a result of soiling of the rewritable media.

**Appealed claim 14**

Appealed claim 14 defines the electronic device of appealed claim 13, wherein the deviation results in the means for controlling the power of the laser diode to be readjusted.

There is no disclosure or suggestion within *Aoki* or *Johann et al.*, taken alone or in combination, for the electronic device of appealed claim 13, wherein the deviation results in the means for controlling the power of the laser diode to be readjusted.

**Appealed claim 15**

Appealed claim 15 defines the electronic device of appealed claim 14, wherein the laser diode as readjusted is retained for writing low-reflection states. There is no disclosure or suggestion within *Aoki* or *Johann et al.*, taken alone or in combination, for the electronic device of appealed claim 14, wherein the laser diode as readjusted is retained for writing low-reflection states.

**Appealed claim 16**

Appealed claim 16 defines the electronic device of appealed claim 14, wherein the rewritable media is channel coded. There is no disclosure or suggestion within *Aoki* or *Johann et al.*, taken alone or in combination, for the electronic device of appealed claim 14, wherein the rewritable media is channel coded.

**Appealed claim 17**

Appealed claim 17 defines the electronic device of appealed claim 5, wherein the deviation occurs as a result of soiling of the rewritable media. There is no disclosure or suggestion within *Aoki* or *Johann et al.*, taken alone or in combination, for the electronic device of appealed claim 5, wherein the deviation occurs as a result of soiling of the rewritable media.

**Appealed claim 18**

Appealed claim 18 defines the electronic device of appealed claim 17, wherein the deviation results in the means for controlling the power of the laser diode to be readjusted. There is no disclosure or suggestion within *Aoki* or *Johann et al.*, taken alone or in combination, for the electronic device of appealed claim 5, wherein the deviation results in the means for controlling the power of the laser diode to be readjusted.

**Appealed claim 19**

Appealed claim 19 defines the electronic device of appealed claim 18, wherein the laser diode as readjusted is retained for writing low-reflection states. There is no disclosure or suggestion within *Aoki* or *Johann et al.*, taken alone or in combination, for the electronic device of appealed claim 18, wherein the laser diode as readjusted is retained for writing low-reflection states.

**Appealed claim 20**

Appealed claim 20 defines the electronic device of appealed claim 18, wherein the rewritable media is channel coded. There is no disclosure or suggestion within *Aoki* or *Johann et al.*, taken alone or in combination, for the electronic device of appealed claim 18, wherein the rewritable media is channel coded.

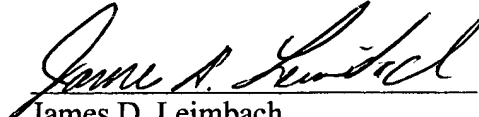
**Conclusion**

In summary, the examiner's rejections of the claims are believed to be in error for the reasons explained above. The rejections of each of claims 1-20 should be reversed.



The Commissioner is authorized to charge fees associated with the filing of this brief to Account No. 50-3745 including any underpayments, excluding the payment of any issue fees, and to credit any overpayments to the same account.

Respectfully submitted,

  
James D. Leimbach  
Attorney for Appellants  
Registration No. 34,374

Telephone: 585-381-9983  
Facsimile: 585-381-9983

**APPENDIX I. Evidence on Appeal**

“None”

**APPENDIX II. Related Proceedings**

“None”

**APPENDIX III. Claims on Appeal**

1. An electronic optical recording device for optical recording on rewritable media, with which two different states can be recorded by adjusting a power level of a laser diode depending on information content to be generated on the media,  
characterized  
in that during writing of the states, a beam from the laser diode is focused upon a spot that is written for one of the states, a reflection is measured from the spot of only one of the states and a measured value of the reflection is used for controlling the power of the laser diode for writing of both states.
2. An electronic device as claimed in Claim 1,  
characterized  
in that the reflection is measured at spots where a piece already in a highly reflecting state is overwritten with a highly reflecting state.
3. An electronic device as claimed in Claim 1, wherein a signal peak detector measures reflected light.
4. An electronic device as claimed in Claim 3, wherein the signal peak detector measurement is compared to a reference value.
5. An electronic device as claimed in Claim 4, wherein the power of the laser diode is adjusted if a comparison of the signal peak detector to the reference value indicates a deviation.
6. An electronic device as claimed in Claim 1, wherein the reflection is measured when a highly reflective state is written.
7. An electronic optical recording device for optical recording on rewritable media that records by adjusting a power level of a laser diode to one of two different states depending on information content to be recorded on the media, comprising:

means for measuring a reflection from a written spot of only one of the states during writing; and

means for controlling the power of the laser diode to be a measured value of the reflection for writing both states.

8. An electronic device as claimed in Claim 7 wherein the means for measuring the reflection measures at spots already written in a highly reflecting state is being overwritten with a highly reflecting state.

9. An electronic device as claimed in Claim 7, wherein the means for measuring the reflection further comprises a signal peak detector that measures reflected light.

10. An electronic device as claimed in Claim 9, wherein the peak detector measurement is compared to a reference value.

11. An electronic device as claimed in Claim 10, wherein the power of the laser diode is adjusted if a comparison of the signal peak detector compared to the reference value indicates a deviation.

12. An electronic device as claimed in Claim 7, wherein the means for measuring the reflection measures when a highly reflective state is written.

13. An electronic device as claimed in Claim 11, wherein the deviation occurs as a result of soiling of the rewritable media.

14. An electronic device as claimed in Claim 13, wherein the deviation results in the means for controlling the power of the laser diode to be readjusted.

15. An electronic device as claimed in Claim 14, wherein the laser diode as readjusted is retained for writing low-reflection states.

16. An electronic device as claimed in Claim 14, wherein the rewritable media is channel coded.
17. An electronic device as claimed in Claim 5, wherein the deviation occurs as a result of soiling of the rewritable media.
18. An electronic device as claimed in Claim 17, wherein the deviation results in the means for controlling the power of the laser diode to be readjusted.
19. An electronic device as claimed in Claim 18 wherein the laser diode as readjusted is retained for writing low-reflection states.
20. An electronic device as claimed in Claim 18, wherein the rewritable media is channel coded.

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**TRANSMITTAL  
FORM**

JUL 03 2006

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

32

Application Number

09/787,095

Filing Date

03/13/2001

First Named Inventor

Gijsbert Joseph Van Den Enden

Art Unit

2652

Examiner Name

Peter Vincent Agustin

Attorney Docket Number

PHN 17,554

**ENCLOSURES (Check all that apply)**

Fee Transmittal Form



Fee Attached



Amendment/Reply



After Final



Affidavits/declaration(s)



Extension of Time Request



Express Abandonment Request



Information Disclosure Statement



Certified Copy of Priority Document(s)

Reply to Missing Parts/  
Incomplete ApplicationReply to Missing Parts  
under 37 CFR 1.52 or 1.53

Drawing(s)



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Petition to Convert to a  
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After Allowance Communication to TC

Appeal Communication to Board  
of Appeals and InterferencesAppeal Communication to TC  
(Appeal Notice, Brief, Reply Brief)

Proprietary Information



Status Letter

Other Enclosure(s) (please identify  
below):

Remarks

Enclosed is an Appeal Brief and the required fee.

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm Name

LEIMBACH ASSOCIATES

Signature

*James D. Leimbach*

Printed name

James D. Leimbach

Date

June 30, 2006

Reg. No.

34,374

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*James D. Leimbach*

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James D. Leimbach

Date

June 30, 2006

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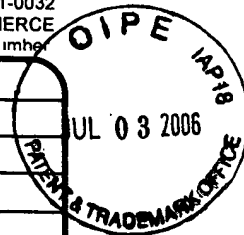
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Effective on 12/08/2004.

Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

**FEE TRANSMITTAL**  
**For FY 2005**☐ Applicant claims small entity status. See 37 CFR 1.27TOTAL AMOUNT OF PAYMENT (\$)  
500.00**Complete if Known**

Application Number	09/787,095
Filing Date	03/13/2001
First Named Inventor	Gijsbert Joseph Van Den Enden
Examiner Name	Peter Vincent Agustin
Art Unit	2652
Attorney Docket No.	PHN 17,554

**METHOD OF PAYMENT (check all that apply)**
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**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

**2. EXCESS CLAIM FEES**

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

<b>Total Claims</b>	<b>Extra Claims</b>	<b>Fee (\$)</b>	<b>Fee Paid (\$)</b>	<b>Multiple Dependent Claims</b>
<u>21</u> - 20 or HP = <u>1</u> x <u>50</u> = <u>50</u>				<b>Fee (\$)</b> <b>Fee Paid (\$)</b>

HP = highest number of total claims paid for, if greater than 20.

<b>Indep. Claims</b>	<b>Extra Claims</b>	<b>Fee (\$)</b>	<b>Fee Paid (\$)</b>
<u>3</u> - 3 or HP = <u>0</u> x <u>0</u> = <u>0</u>			

HP = highest number of independent claims paid for, if greater than 3.

**3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

<b>Total Sheets</b>	<b>Extra Sheets</b>	<b>Number of each additional 50 or fraction thereof</b>	<b>Fee (\$)</b>	<b>Fee Paid (\$)</b>
<u>          </u> - 100 = <u>          </u> / 50 = <u>          </u> (round up to a whole number) x <u>          </u> = <u>          </u>				

**4. OTHER FEE(S)**

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): Fee for Appeal Brief

500

**SUBMITTED BY**

Signature	<i>James D. Leimbach</i>	Registration No. (Attorney/Agent) 34,374	Telephone (585) 381-9983
Name (Print/Type)	James D. Leimbach		Date 06/30/2006

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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